

Title: LOUDSPEAKER DESIGN
METHOD

Inventor(s): Nicholas P. R. HILL et
al.

DOCKET NO.: 085874/0304

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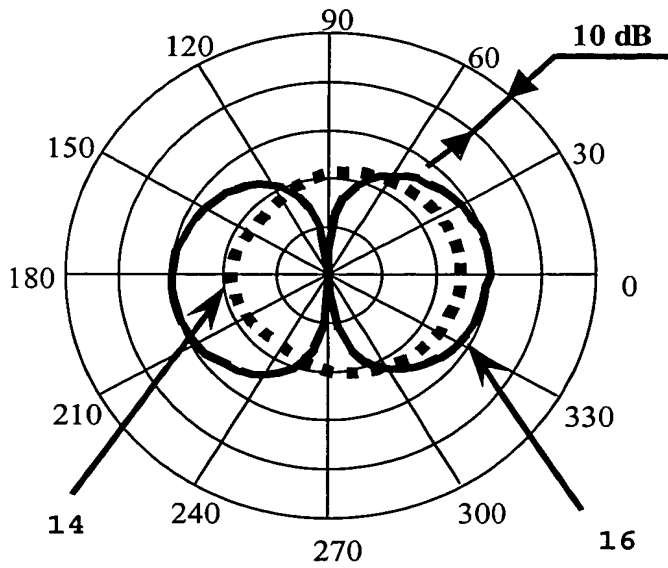


Fig. 1a

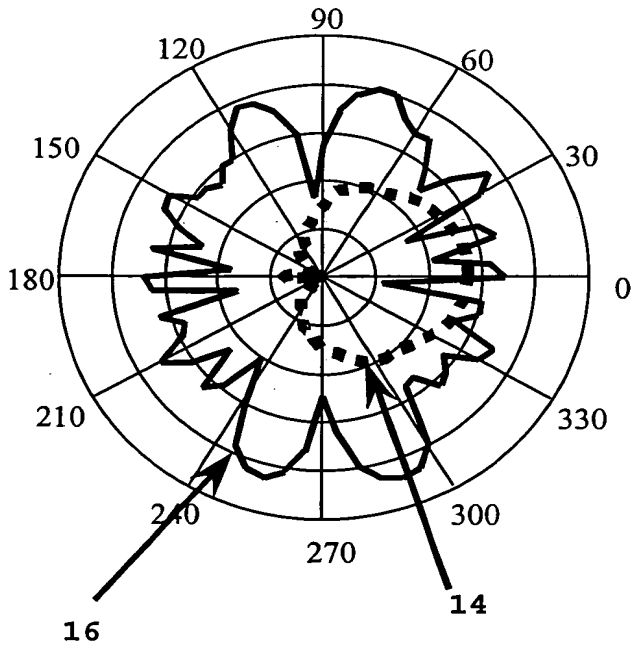


Fig. 1b

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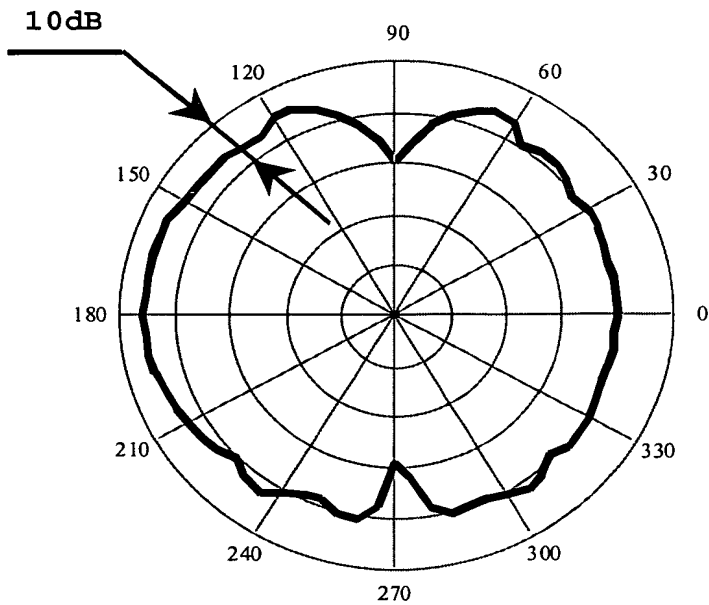


Fig. 2

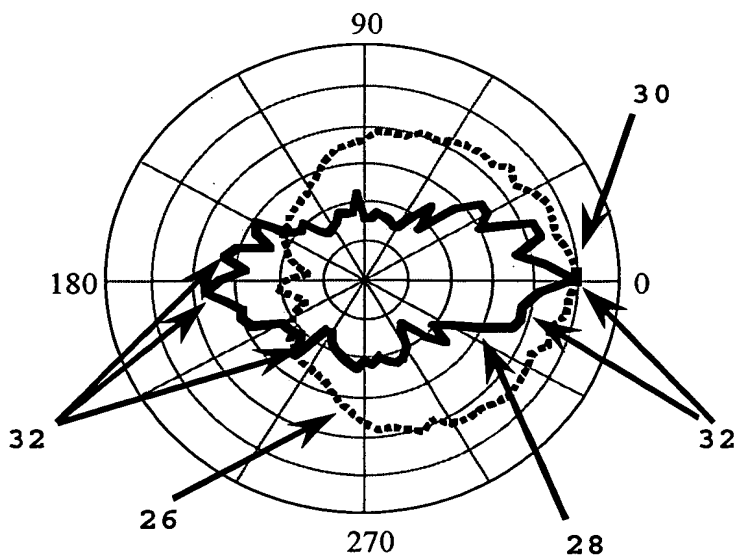


Fig. 5

dB, arb. units

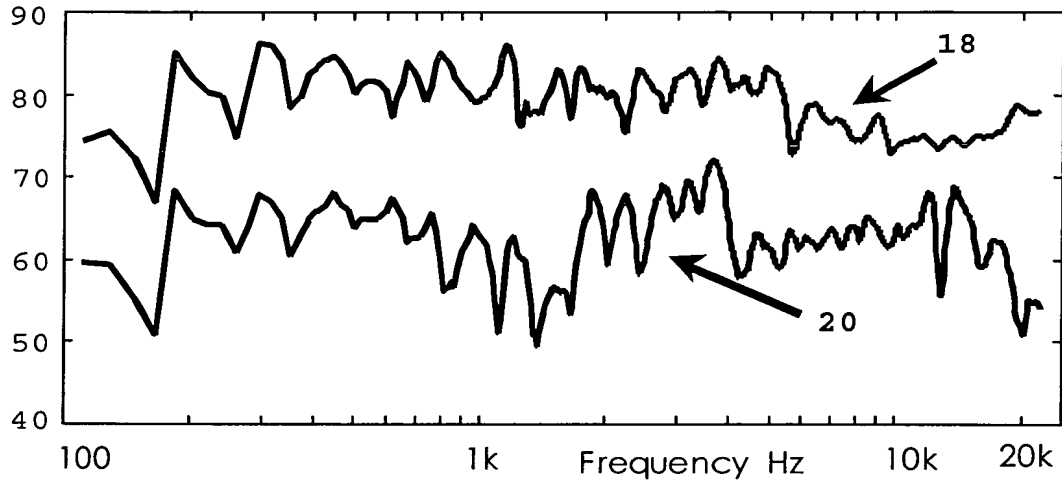


Fig. 3a

dB, arb. units

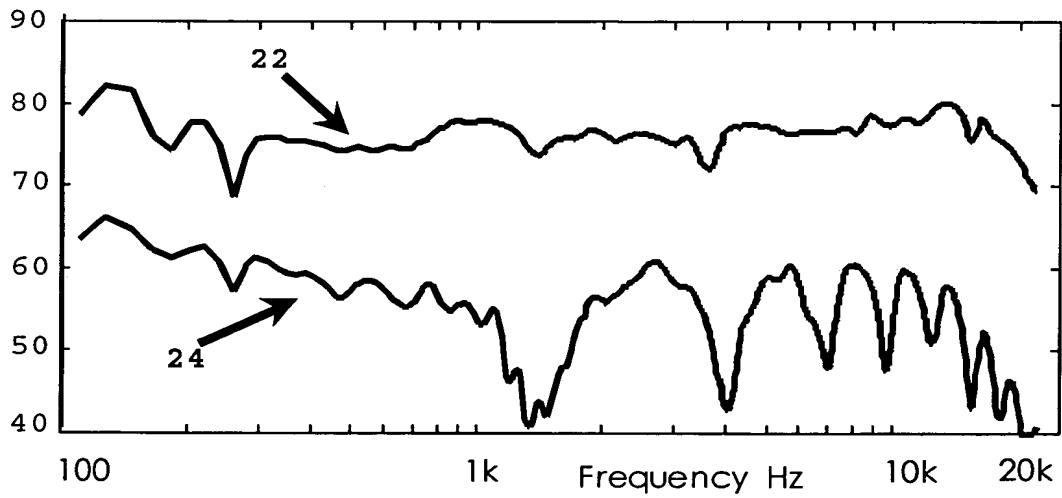


Fig. 3b

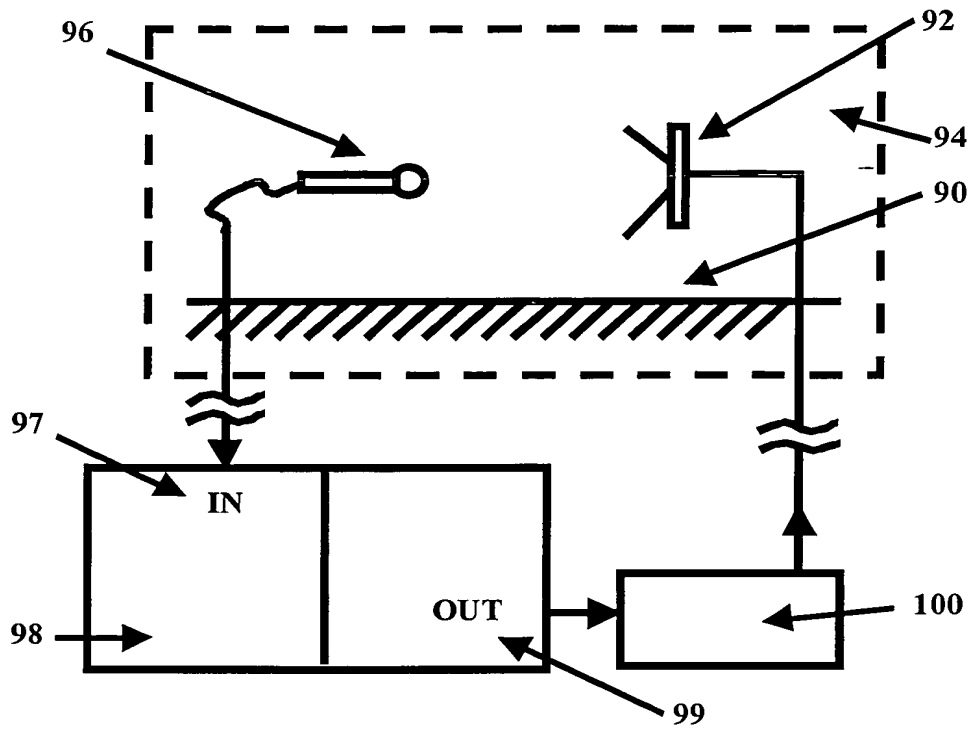


Fig. 3c

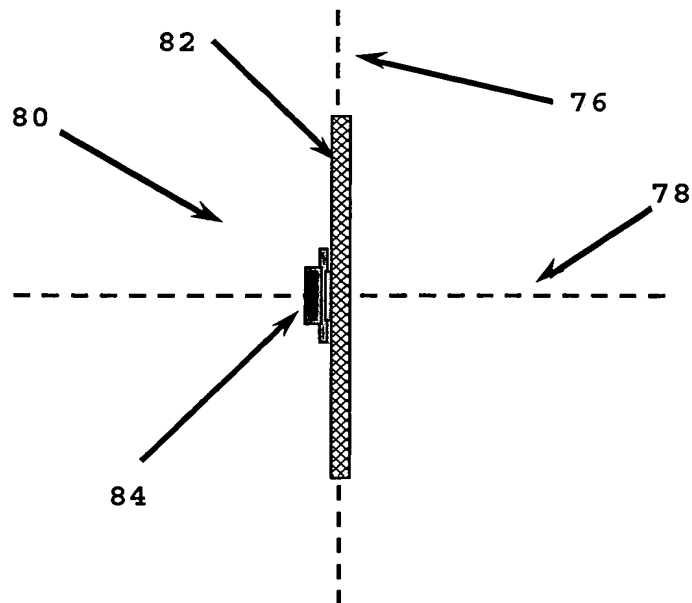
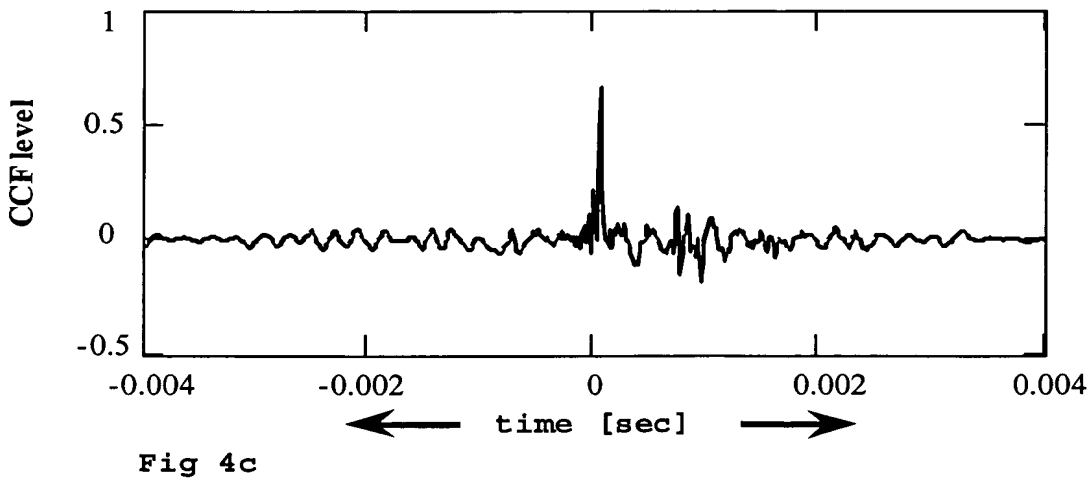
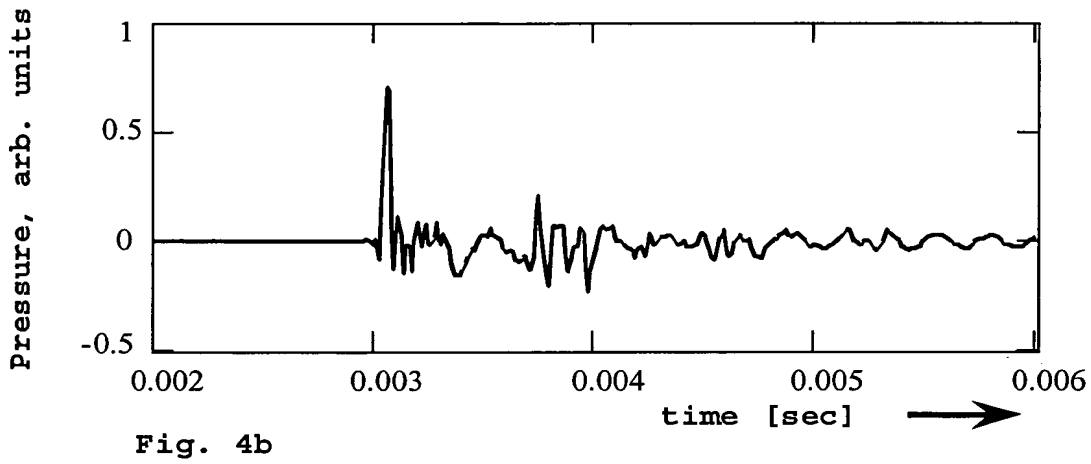
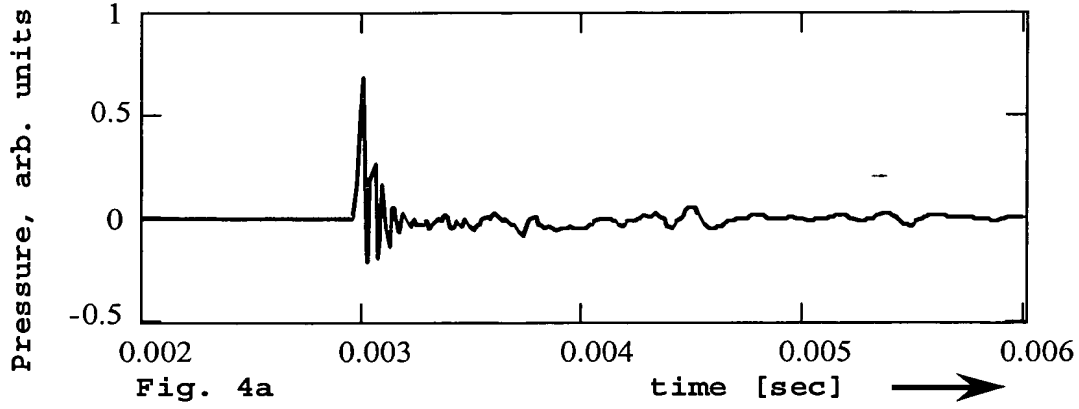


Fig. 15

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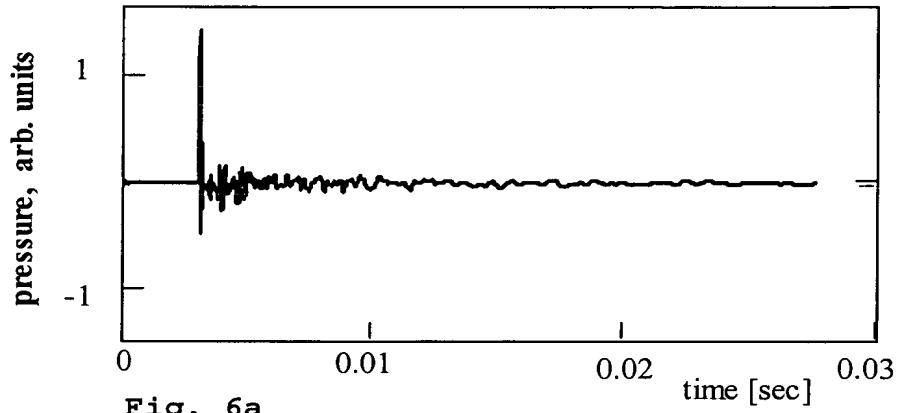


Fig. 6a

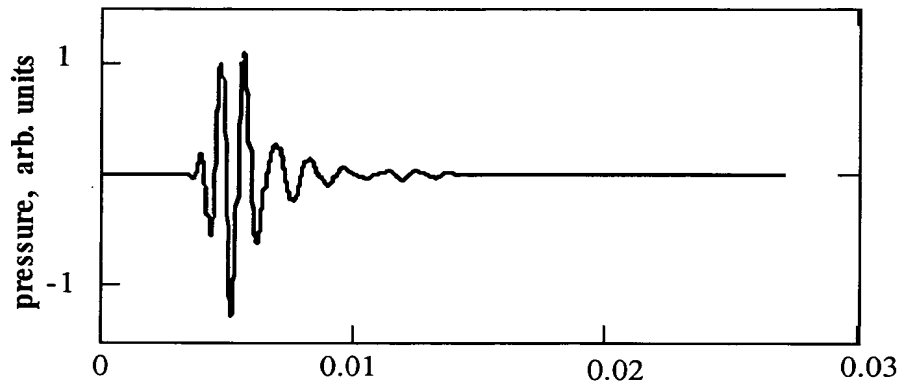


Fig. 6b

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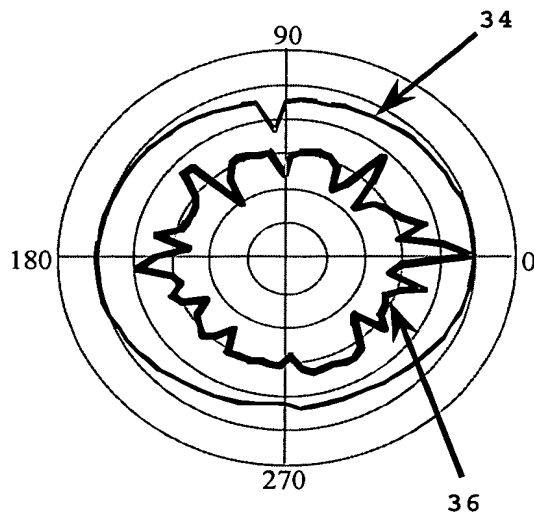


Fig. 7a

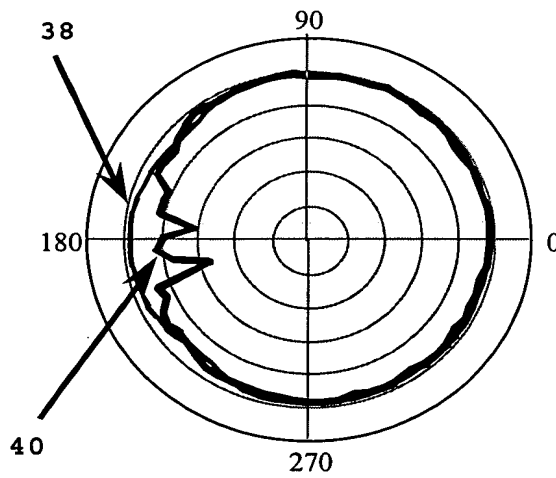


Fig. 7b

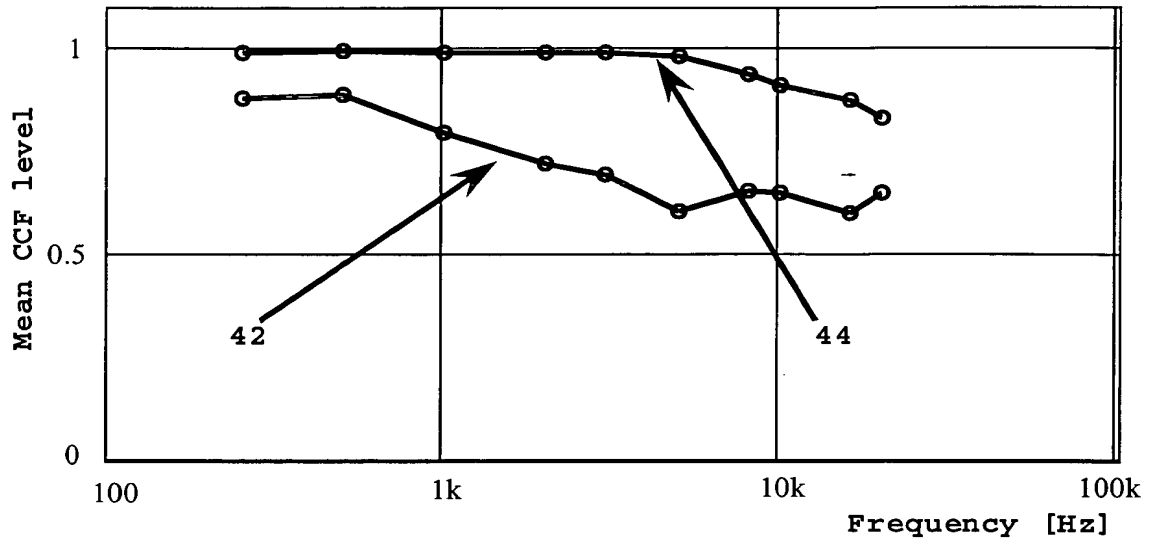


Fig. 8

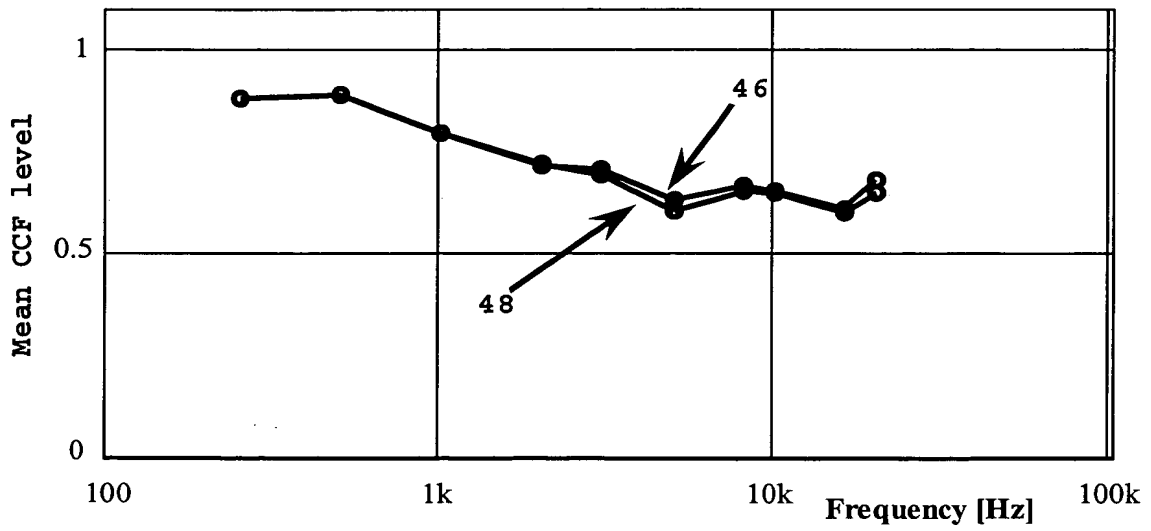


Fig. 9

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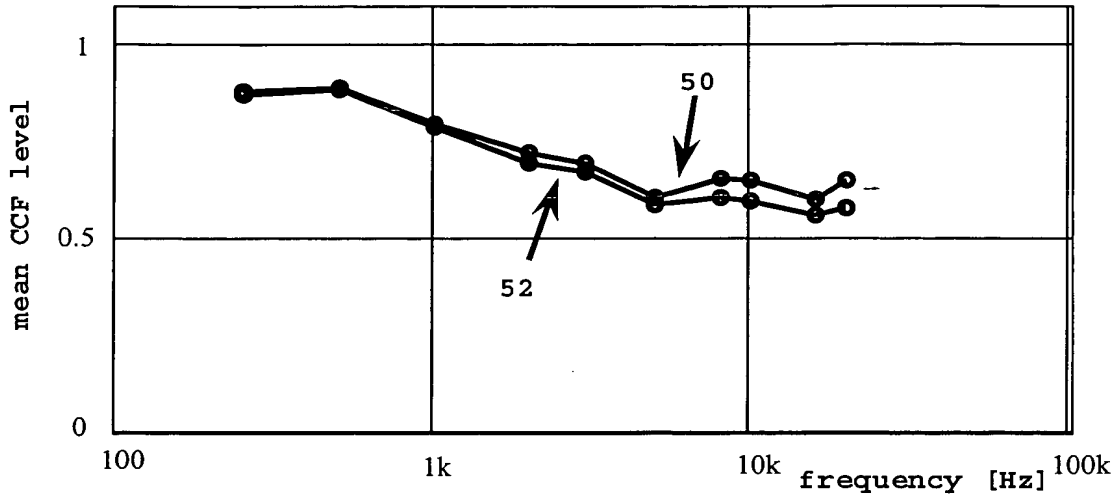


Fig. 10

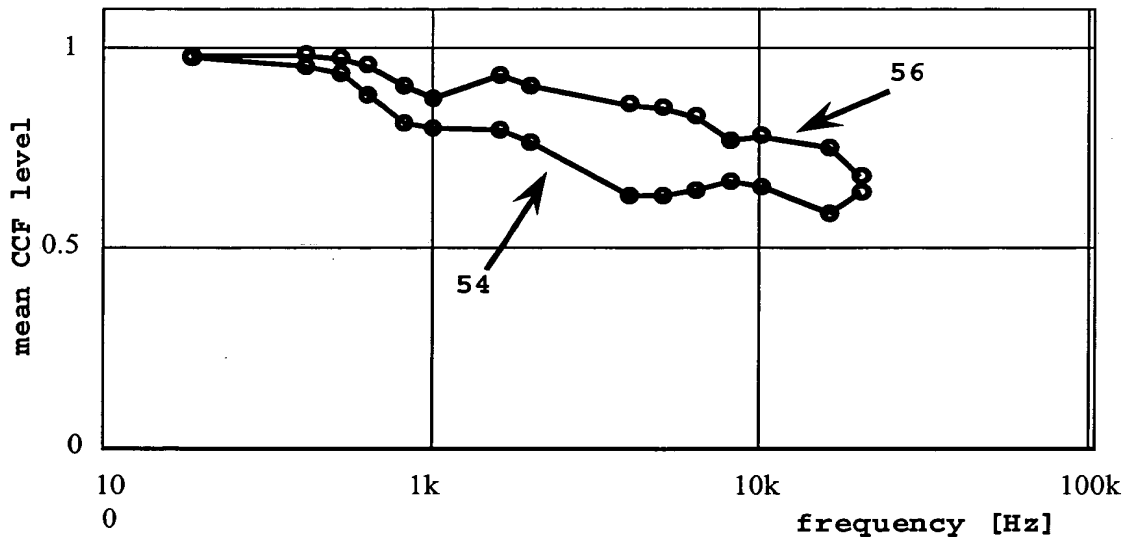


Fig. 11

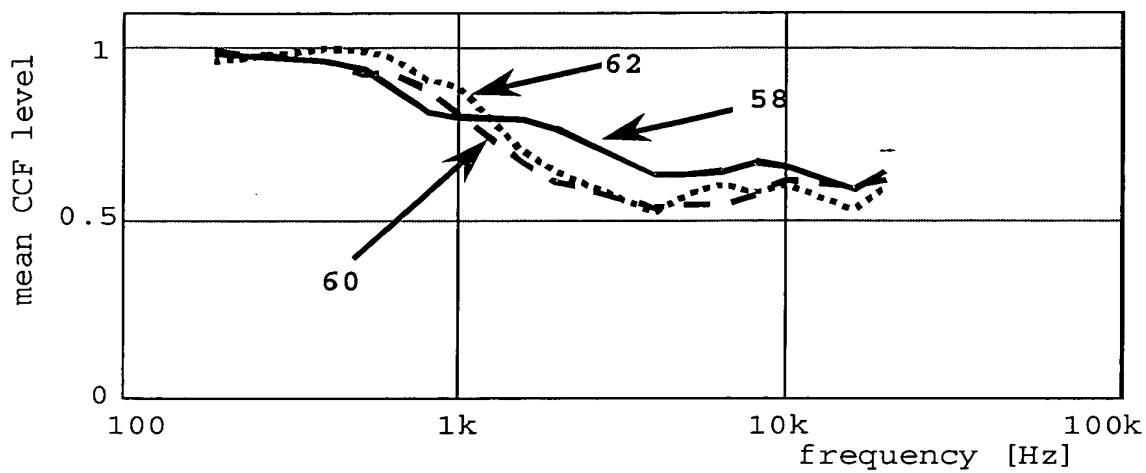


Fig. 12a

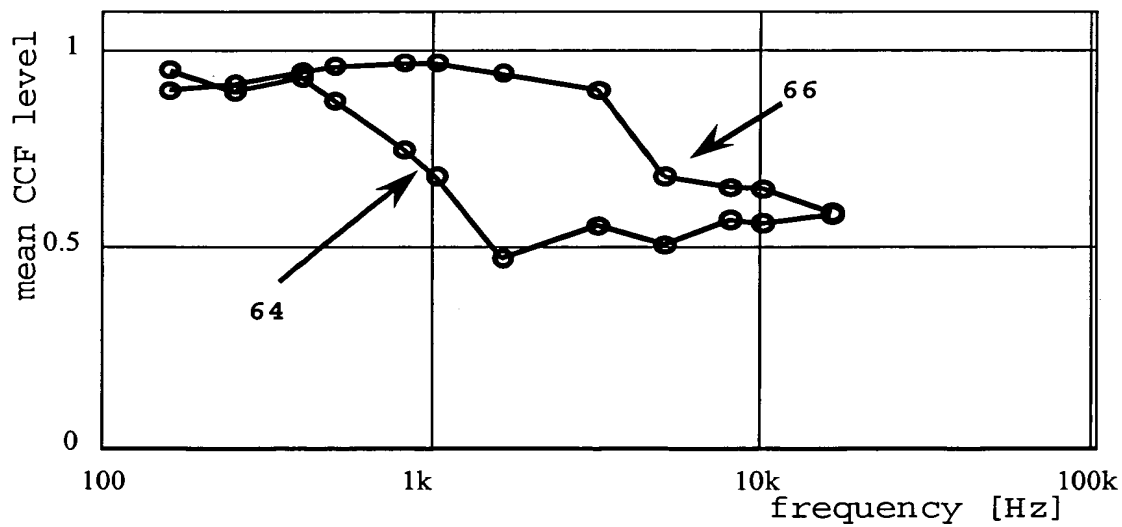


Fig. 12b

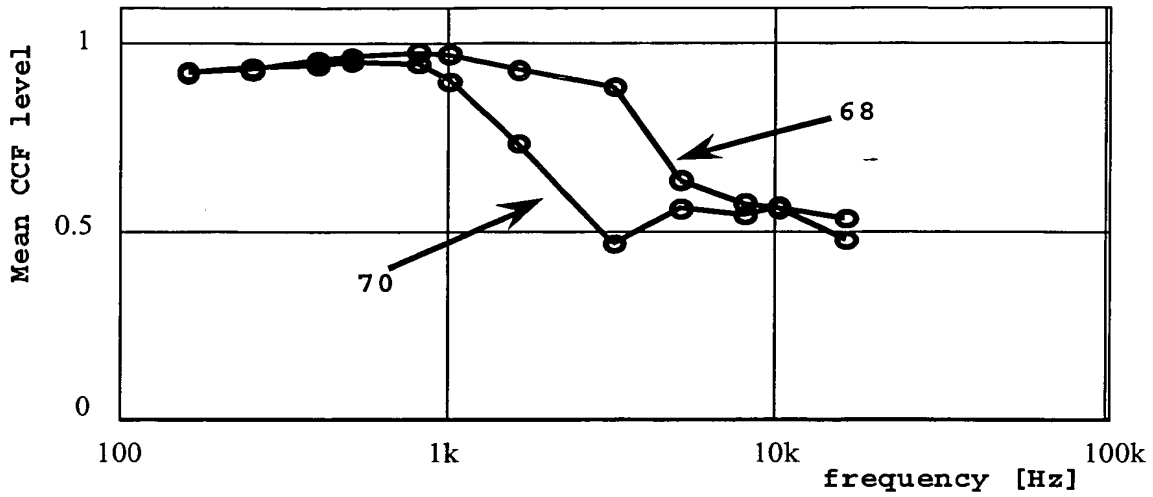


Fig. 13

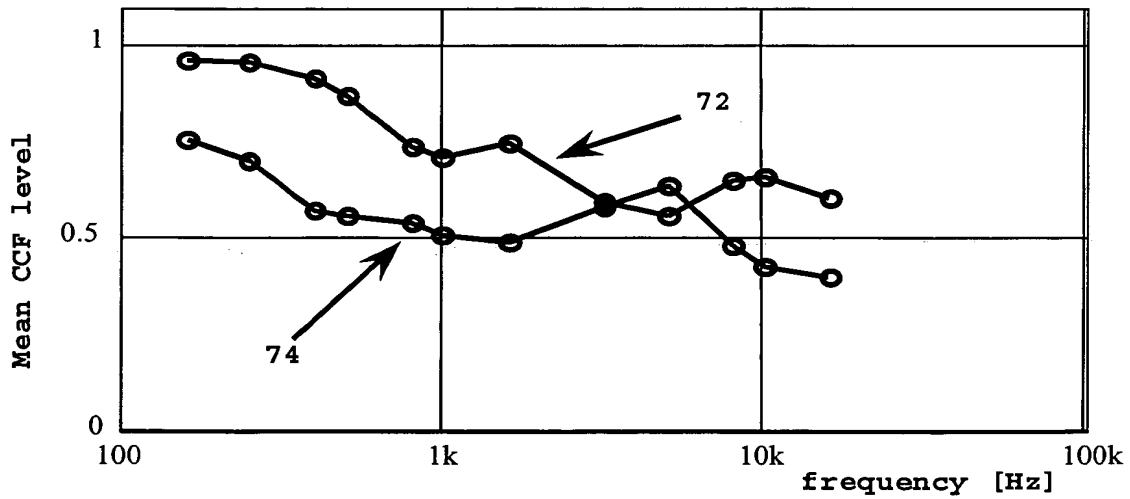


Fig. 14

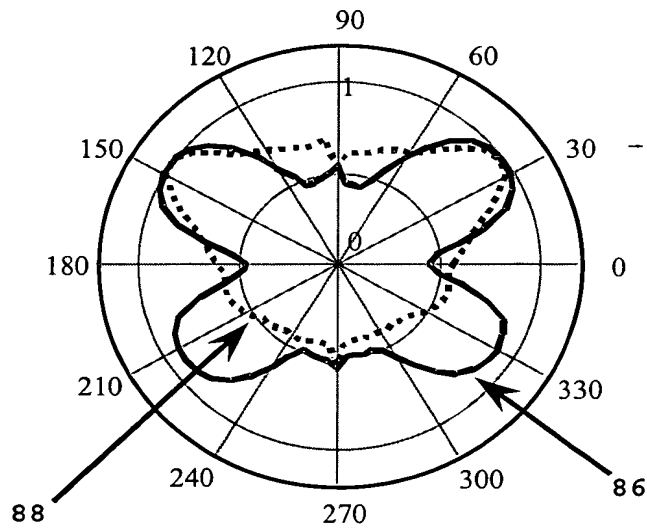


Fig. 16a

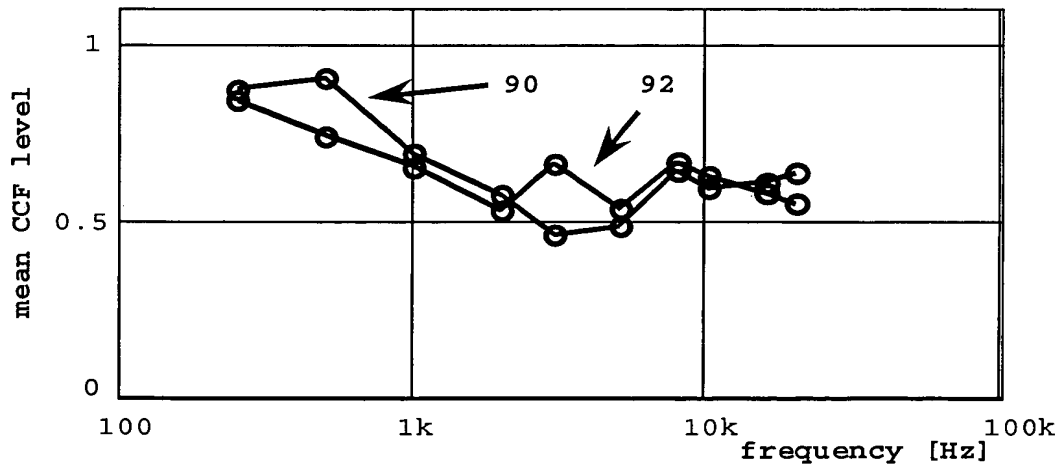


Fig. 16b

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Fig 17

Choose reference position and measure
response

(a)



Choose one or more other positions and
measure the response

(b)



If frequency resolution is required filter
the response into one or more bands.

(c)



Calculate the correlation of the reference
position to the other positions

(d)



Plot the correlation levels as a function
of angle from the reference position
and/or the frequency range of the filter

(e)

Fig 18

Determine a target level of correlation
in a given frequency band

(a)



Perform the diffusivity measure on the
first iteration of the design

(b)



Adjust the properties of the loudspeaker.

(c)



Repeat the previous two steps until the
target level of correlation is achieved

(d)

FIG. 17